**PRIMARY OLYMPIADS**

1. The diagram below shows the arrangement of electrode and how water affects electricity.

Battery

Connecting wire

Carbon rods

Trough

Water

1. i) What happens when electricity passes through water?

Ans: Water splits into hydrogen and oxygen.

ii) Name the gases produced at the cathode and anode?

Ans: Cathode is hydrogen, and Anode is oxygen

iii) How can water be made a strong electrolyte?

Ans: By adding acid to water

iv) What are the identity tests for the gases produced at the cathode and anode?

Ans: Hydrogen at the cathode puts off the growing splint with a pop sound and oxygen at the anode relights a growing splint.

(b)i) What are the products when Sodium metal reacts with water?

Ans: Sodium hydroxide and hydrogen gas.

ii)Write the word equation showing the reactants and products.

Ans: Sodium + Water Sodium hydroxide + hydrogen gas

iii)Why are pots made of iron and aluminium

Ans: Because they are good conductors of heat.

2. Study the diagram below and answer the questions that follow.

Q

S

R

P

(a)Identify the parts labelled Q and S.

Ans: Q= Aorta and S= Right atrium

(b)What is the function of the valves in the heart?

Ans: To prevent the back flow of blood when it is pumped

(c)Mention any two substances transported by the blood.

Ans: Gases , hormones, glucose, etc

(d)Why are arteries thicker than veins?

Ans: Because arteries carry blood at high pressure than veins.

(e) What is the other name for atria?

Ans: Auricle

(f) What is aerobic respiration?

Ans: Production of energy when glucose reacts with oxygen in the cells

(g) Write the word equation for aerobic respiration.

Ans: Oxygen + Sugar Carbon dioxide + Water + Energy

(h) Name the blood vessel that transports blood from the lung to the heart.

Ans: Pulmonary vein.

(i)Explain the function of the letter labelled P.

Ans: To separate the two sides of the heart so as to prevent the mixing up of oxygenated and deoxygenated blood.

3. Study the diagram below and answer the questions that follow

Mercury

Constriction

(a)Name the instrument above.

Ans: Clinical thermometer

(b)State the function of the instrument above.

Ans: To measure the body temperature

(c)What is the function of the constriction?

Ans:It prevents mercury from flowing backwards into the bulb.

(d)What is the body temperature of a human being?

Ans: 370C

(e)Why does a doctor shake the thermometer after reading the temperature?

Ans: In order to allow mercury to flow back into the bulb

(f)Give two reasons why mercury is used in the thermometer above.

Ans: - because it expands evenly

-it responds quickly to changes in temperature.

-it is easy to see.

(g)Why does the doctor holds the thermometer by the stem and not by the bulb?

Ans: So that he may not disturb the readings on the thermometer.

4. The diagram below shows a three pin plug. Answer the following questions given below;

X

Red/brown

Black/ blue

Yellow/ green

(a)Name the three wires coloured in the above diagram;

i)Yellow/Green

Ans: Earth wire

ii) Black/Blue

Ans: Neutral wire

iii)Red/Brown

Ans: Live wire

(b)Name the part labelled X in the diagram.

Ans: A fuse

(c)What is the function of the part X in the diagram above.

Ans: It protects electric appliances from damage

(d)An electric appliance is rated 12V, 60W. Calculate the current passing through the electric appliance.

Ans: 5A

(e)What is electric power?

Ans: It is the rate at which an electric appliance uses electricity.

5. Below is the diagram of a flower.

C

D

**2**

E

F

B

A

**1**

(a)Name the parts labelled 1 and 2.

Ans: 1- Stamen and 2- Pistil or Carpel

(b)Give two reasons why the above flower can be said to be an insect pollinated flower.

Ans: -The anthers hang outside

-It has dull and small petals

(c)Define pollination.

Ans: It is the transfer of pollen grains from the anthers to the stigma

(d)A collection of sepals is called….

Ans: Calyx

(e)What is referred as corolla?

Ans: A collection of petals

(f)What is asexual reproduction?

Ans: A reproduction that does not involve the fusion of the male and the female sex cells

(g)What type of reproduction do the following crops undergo?

i)Pease

Ans: Sexual

ii)Potatoes

Ans: Asexual or vegetative

(h)A tube formed as pollen travels from the stigma to the ovary is called….

Ans: Micropyl/pollen tube

PRIMARY OLYMPIADS

103, When dry soil is put in water, bubbles are seen, This shows that soil contains----

Answer: air

104. What do we call ratio of load to the effort?

Answer: Mechanical advantage

105.A wheel barrow is an example of a -------- class lever ( one attempt)

Answer: second

106. What does the friction between the ground and our feet cause?

Answer: Movement

107. In a machine what comes out has waste part of energy?

Answer: Heat

107. What is reflected sound?

Answer: An echo

108. What is the name of the instrument used for testing sound called--------------

Answer: sedometer\*

109. Bones have hollow spaces filled with a substance called-------------

Answer: Marrow

110. What do you call the process of getting rid of waste matter out the body ----------

Answer: Excretion

111. The skin pigment which protects our bodies by absorbing ultraviolet light from the skin is called -------------

Answer: Melanin

112. The units for force is------------

Answer: Newtons

113.Which gas do plants give out during the night?------------

Answer: Carbon dioxide

114. A disease that results from over multiplication of cells is called ----------

Answer: Cancer

115. A person addicted to alcohol is called an ------------

Answer: Alcoholic

116. A microbe that can not live on its own but rely on other living things to survive is –

Answer: Virus

117. A disease which spreads from very fast and kills a lot of people within a short time e.g. cholera is called ------------

Answer: epidemic

118. The acronyms AIDS stands for ----------

Answer: Acquired Immune Deficiency Syndrome

119. Diseases which are spread from one person to another through water are called------

Answer: Water borne disease

1. The stamen comprises --------

Anther: Carpel and Filament

1. The female part of the flower is called -------

Answer: Carpel or Pistil

1. The process by which pollen transfer from anthers to the stigma is called --------

Answer: Pollination

1. After fertilization the ovary of the plant will develop into ---------

Answer: Fruit

1. The kind of reproduction where no sex cells are involved is called----------

Answer: Asexual reproduction

1. Electric death resulting into death is called--------------

Answer: electrocution

1. The amount of matter in a substance is its -----------

Answer: Mass

1. Fertilized ovules are called -------

Answer: Seeds

1. The composition on Nitrogen in the air is --------

Answer: 78%

1. Which gas is used in combustion? --------

Answer: Oxygen

1. The gas used in extinguishing fire is called ------

Answer: Carbon dioxide

1. The fusion of the male sex cells and female sex cells is called ----------

Answer: Fertilization

1. A substance which is made up of two or more elements which are chemically combined is called -----------------

Answer: Compound

1. Carbon dioxide is compound of ---------------

Answer: carbon and oxygen

1. The common name for sodium chloride is-------------

Answer: Common Salt

1. The name of the 6th planet on the solar system is called----------

Answer: Saturn

1. Objects which give out light such as the sun are called ------------

Answer: Luminous

1. The moon is not luminous we see it during the night because it----------

Answer: reflects light from the sun

1. An eclipse of the sun occurs when moon passes between------------

Answer: the sun and the earth and all three in a straight line

1. Name the pins on the standard plug:
2. Neutral
3. Earth
4. Live
5. Name the colours of the following cables on the standard plug :
6. Neutral – Blue
7. Earth – Green or Yellow
8. Live – Brown
9. A device which breaks off the circuit if the current becomes too high is a --------

Answer: Fuse or Contactors

1. The scattering of seeds from the mother plant is called -------

Answer: Seed dispersal

1. The outer part of our skin which comprises dead cells is -------------

Answer: cornified layer\*

1. The dark pigment made of cells in the skin is called-------

Answer: Melanin

1. The Vitamin which help in building strong , healthy bones is --------

Answer: Vitamin D

1. The process which glucose combined with oxygen to produce carbon dioxide , water, and energy is known as -----------

Answer: Respiration

147.Which part of teeth is in human beings are responsible for cutting food--------

Answer: Incisors

1. The transfer of energy from one trophic level to the other in the ecosystem is called --------------

Answer: Food chain

1. Name the part of the germinating seed which develops into leaves-----------

Answer: Plumule

1. Mention a nutrient which is responsible for sight in our body -------------

Answer: Vitamin A

1. Which part of the plant cells is responsible for controlling all the activities of the cell-------------

Answer: Nucleus

1. In which cells does the process of photosynthesis take place in plants?-----------

Answer: Palisade cells

1. Name the bacterial which is found root nodules of leguminous plants such as ground nuts --------------------

Answer: Rhizobium Bacteria

1. The complete eradication of a specific group of of animals from existence is called -----------

Answer: extinction

1. To which group of animals does a frog belong to ? ---------

Answer: Amphibians / Vertebrate

1. Name the blood vessel which is responsible for transporting deoxygenated blood from all parts of the body-------

Answer: Venacava

1. The measure of soil acidity or alkalinity is called-------------------

Answer: Soil p H

1. Name the gas which is used by plants in process of photosynthesis---------------

Answer: Carbon dioxide

1. What is the function of the of valves found in the heart ?

Answer: To prevent blood from flowing backward

1. The ability of soil to hold water is called -------------

Answer: Soil drainage

1. What is the other name for a fertilized egg?

Answer: Zygote

1. Which vessel in plant is responsible for transporting food to all parts of the plant?

Answer: Phloem

is a diagram of a flower

1.

( i) Name the labeled numbers :

1. stamen
2. Pistil or carpel [2
3. Define pollination

Answer: It is the transfer of pollen from other to the stigma [ 2]

1. A collection of sepals is called --------

Answer : Calyx

1. What is referred to as the corolla?

Answer: A collection of petals

1. What is sexual reproduction?

Answer: Reproduction which does not involve the fusion of male and female sex cells/ gametes

1. What type of reproduction do the following crops under go
   1. Beans

Answer : sexual

* 1. Potatoes

Answer: Asexual

1. A tube formed as pollen travels from the stigma to the ovary is called -----------

Answer: Micropyl/ accept pollen tube